What's In My Drinking Water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

As water travels over the surface of the land or through the ground on its way to the Patuxent and Potomac rivers, it dissolves naturally occurring minerals, vegetation and, sometimes, even radioactive material, which can be the result of oil and gas production and mining activities. It can also pick up animal waste, pesticides, and debris from human activity. Rain also washes off waste on impervious surfaces - sidewalks, roads and other large expanses of concrete - and transports it to the rivers and reservoirs.

To ensure that our water is safe to drink, we treat and disinfect it to meet standards set by USEPA. In cases where contaminants cannot easily be measured, USEPA requires treatment techniques to reduce amounts to acceptable levels. More information about contaminants and potential health effects may be obtained by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

Update on Lead

WSSC has met and continues to meet all federal and state drinking water regulations, including the U.S. Environmental Protection Agency's (EPA) Lead and Copper Rule. We are not experiencing a problem with lead in our water. As required by the EPA, WSSC is responsible for residential lead testing within our service area. Our last sampling of homes, conducted in 2002 per EPA guidelines, found NO sites exceeding the 15 parts per billion federal Action Level. Historically, levels have been below the Action Level for the past 10 years and are declining.

WSSC's next required sampling would have been scheduled for late 2004 / early 2005. However, considering recent events and news reports in this region, we expanded our approach to lead sampling earlier this year beyond EPA requirements. Test results are once again well below EPA regulations and lead levels are generally lower than 2002 results.

While WSSC continues to successfully meet and surpass EPA Lead and Copper Rule requirements, we want our customers to know what they can do to reduce risks associated with lead, particularly if they have concerns due to an "at-risk" person in their household (i.e., young children, pregnant women, and nursing mothers). Although our lead sampling results continue to be very good, it is possible that lead levels in your home may be higher than at those we have tested as a result of plumbing materials. Lead can leach into water from home pipes and fixtures. If you are concerned about "at-risk" individuals in your home or your home's plumbing, there is an easy and inexpensive solution – flushing (see guidance at right). If you would like to have your home's water tested for lead, you can contact our lab to schedule a test (for a fee) at 301-206-7575.

Answers To Frequently Asked Questions About Lead:

How does lead get into the water supply?
Water leaving WSSC's filtration plants is virtually lead free. Lead can leach into water from lead pipes, brass plumbing parts, lead-based solder used in joining copper pipes, and other types of home plumbing fixtures. Since WSSC does not have any known conventional lead water lines, a potential source of lead for residents in our service area may come from lead-based solder (which WSSC banned in 1986) in homes and from household brass plumbing fixtures. For this reason, WSSC's testing locations focus on homes built between 1983 and 1986, per EPA guidelines. Home plumbing pipes installed prior to 1983 have likely developed an interior mineral coating protecting the pipes from leaching lead into the home water supply.

What is WSSC's role in school lead testing?
WSSC supports Montgomery and Prince George's County School System water sampling protocols by providing free lab services and technical expertise. Lead testing for schools and childcare centers is addressed by a different EPA regulation than lead testing for homes. Local school systems are responsible for lead testing and any remediation in schools and childcare centers. There is a 20 parts per billion federal Action Level for each fixture tested.

Should I always run the water before drinking or cooking? If so, how long? What about using hot water?
"Flushing" your cold water tap until the water turns noticeably colder (usually for 30 seconds to 2 minutes) before using water for drinking or cooking has been shown to be an effective method for reducing home lead levels. Do not use hot water for drinking or cooking as lead levels generally are higher in hot water. For more information, contact EPA's Safe Drinking Water Hotline at 1-800-426-4791 or the EPA website: www.epa.gov.

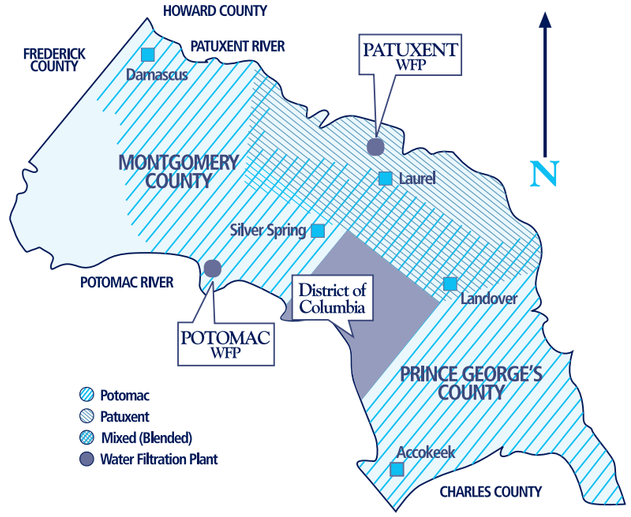
Did WSSC make any recent water chemistry changes that might impact lead levels?
Yes. Unrelated to lead regulations, in November 2003, WSSC began adding a very small amount of orthophosphate during the water filtration process to help minimize any potential future copper pipe pinhole leaks for our customers. Since this corrosion inhibitor can form a protective layer on the interior surface of metal pipes, it should further decrease lead levels.

To share your comments on this report, or for more information about your drinking water, please call WSSC at 301-206-8100.

Visit our website - www.wsscwater.com - for complete water quality data.

WASHINGTON SUBURBAN SANITARY COMMISSION

WATER QUALITY REPORT-2003



Is My Water Hard Or Soft?

Potomac water tends to be hard (120-130 milligrams per liter)
Patuxent water is soft (60-65 milligrams per liter)
(Hard water contains more dissolved calcium and magnesium and less sodium.)

Dear Valued Customer,

Thank you for the opportunity to supply you with clean, reliable water. We are extremely pleased to have once again provided you with water that met or surpassed U.S. Environmental Protection Agency standards for safety.

2003 was quite a year for challenging weather events, particularly Hurricane Isabel. Thanks to the hard work and dedication of our employees, WSSC continued to supply safe water to our customers (there was no need to boil WSSC water). Years of sound planning and engineering, including the use of elevated storage tanks, enabled us to deliver clean water, even during power outages. We also continued our commitment to stabilizing rates, resulting in the sixth fiscal year in a row without a rate increase.

We hope you find this important document about the source of your water, how it is cleaned and answers to frequently asked questions, to be helpful. You will also note that we have included information regarding a timely topic of public interest, lead in water. Please contact us with any questions or comments.

John R. Griffin
General Manager

Where Does My Water Come From?

Two rivers, the Patuxent and Potomac, are the sources of all the water we process. The raw water treated at the Patuxent Water Filtration Plant (WFP) is held in two reservoirs – Triadelphia and Rocky Gorge – and is pumped to the plant. The Potomac WFP takes its raw water directly from the Potomac River. The map shows the approximate service area of both plants. As indicated, some areas we serve receive blended water, processed at both the Patuxent and Potomac WFPs.

This report contains very important information about your drinking water. Please translate it, or speak with someone who understands it.

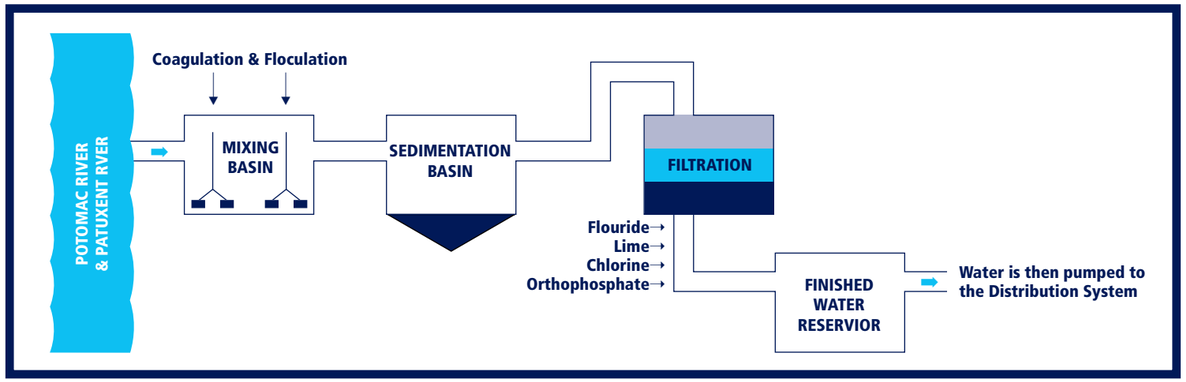
El informe contiene información importante sobre la calidad del agua en su comunidad. Tradúzcalo o hable con alguién que lo entienda bien.

这份报告中有些重要的信息，讲到关于您所在社区的水的品质。请您找人翻译一下，或者请能看得懂这份报告的朋友给您解释一下。

이 보고서에는 귀하가 거주하는 지역의 수질에 관한 중요한 정보가 들어 있습니다. 이것을 번역하거나 충분히 이해하시는 친구와 상의하십시오.

How Is My Water Treated?

Your water undergoes several treatment processes after it arrives at the plant and before it is sent to the distribution system, which consists of more than 5,000 miles of pipeline and 63 water storage facilities. Our water treatment includes: coagulation and flocculation (to cause small particles from the raw water to adhere to each other); sedimentation (to remove those particles); filtration (to remove the very smallest particles); chlorination (for disinfection); lime addition (to minimize the potential for dissolving lead solder used in older homes); and fluoridation (to prevent tooth decay). Orthophosohate is also added (to help minimize pinhole leaks in home plumbing).



Ensuring Drinking Water Quality

Both of our Water Filtration Plants - the Potomac and the Patuxent - are undergoing extensive improvements. Efficiency, reliability, and security will be enhanced through upgrades to treatment processes and electrical equipment, and state-of-the-art ultraviolet disinfection facilities will be added. Patuxent plant enhancements are scheduled for completion in late 2005. At the Potomac plant, which produces about 75 percent of the water used by our 1.6 million customers, work should be finished in late 2008.

Important Health Information From USEPA

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Center for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available by calling the USEPA Safe Drinking Water Hotline at 1-800-426-4791.

How Can I Get Involved?

WSSC holds numerous project and policy-related public hearings and informational workshops throughout the year, and we welcome your participation and input. You are invited to attend public hearings on our proposed Capital Improvements Program (CIP). The six-year CIP proposes planning, design and construction expenditures for major water and sewer facilities. This year, the CIP hearings for fiscal years 2006 through 2011 will be held in Rockville on September 8 at 7:30 p.m. and in Largo on September 9 at 7:30 p.m. For more information and copies of the proposed CIP, please call our Public Communications Office at 301-206-8100 or email us at: communications@wsscwater.com. To find out about other upcoming public meetings, or to view our current CIP, please visit our website at www.wsscwater.com.

We also are a proud partner in the Patuxent Reservoirs Watershed Protection Group, which is dedicated to protecting the Patuxent Reservoirs – an important drinking water source for WSSC customers. The Group's annual Earth Month activities feature workshops and hands-on activities -- and we encourage your participation. Please contact WSSC's Environmental Office at 301-206-8077 for more information on how you can get involved and help us protect our drinking water supplies. An easy way for you to get involved and help us protect and preserve this precious natural resource is by conserving water. For more information – including water saving tips – on the regional Wise Water Use campaign, please visit: www.wateruseitwisely.com

Testing Parameters – The State and USEPA require us to test our water on a regular basis to ensure its safety. In its routine chemical analyses, WSSC tests for nearly 200 chemical substances. The table to the right shows the substances detected in your finished water between January 1 and December 31, 2003 at both the Patuxent and Potomac Water Filtration Plants.

WATER QUALITY DATA

SUBSTANCES	UNITS	PATUXENT WFP AVG	PATUXENT WFP RANGE	POTOMAC WFP AVG	POTOMAC WFP RANGE	MCL (EPA)	MCLG (EPA)	MAJOR SOURCE IN DRINKING WATER
PHYSICAL								
pH	Units	8.2	8.0-8.3	7.5	7.5-7.5			
Turbidity	NTU	0.06	0.05-0.08	0.05	0.03-0.07	TT	n/a	Soil runoff
METALS								
Barium	ppb	23	20-27	32	29-36	2000	2000	Discharge from drilling wastes; metal refineries; erosion of natural deposits
Chromium	ppb			2	<2-2	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Copper (POE)	ppb	16	<10-30			1300[1]	1300[1]	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
INORGANIC								
Fluoride	ppm	1.01	0.69-1.13	.93	0.60-1.06	4	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Nitrate as Nitrogen	ppm	1.41	1.04-1.75	2.17	1.49-3.39	10	10	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
BACTERIOLOGICAL								
Total Coliform	% of pos.	0.48	0-2.43	0.48	0-2.43	5	0	Human and animal fecal waste
E. coli	% of pos.	0.11	0-1.08	0.11	0-1.08			Human and animal fecal waste
No. of E. coli Positive Repeat		0		0		0	0	
DISINFECTION BYPRODUCTS								
Haloacetic Acids, Total	ppb	40.1	22.3-56.6	40.1	22.3-56.6	60[2]	n/a	By-product of drinking water chlorination
Trihalomethanes, Total	ppb	46.3	23.7-74.9	46.3	23.7-74.9	80[2]	n/a	By-product of drinking water chlorination
PESTICIDES								
Atrazine	ppb	<0.5	n/d-0.53			3	3	Runoff from herbicide used on row crops
Di(2-ethylhexyl)phthalate	ppb	1.58	n/d-5.82	1.09	n/d-3.60	6	0	Discharge from rubber and chemical factories
VOLATILE ORGANIC COMPOUNDS								
Dichloromethane	ppb			<0.5	n/d-0.5	5	0	Discharge from pharmaceutical and chemical companies
RADIONUCLIDES								
Gross Alpha	pCi/L	<2	<1-3	<1	<1-2	15	0	Erosion of natural deposits
Gross Beta	pCi/L	<4	<3-6	<4	<3-5	50[3]	0	Decay of natural and man-made deposits

Terms Defined:

NTU - Nephelometric Turbidity Unit. Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system.

TT - Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water

Action Level - The concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow

n/a - not applicable

n/d - not detected

< - less than

POE - Point-of-entry to distribution system

ppm - parts per million, the equivalent of one minute in 2 years or one penny in $10,000

ppb - parts per billion, the equivalent of one minute in 2,000 years or one penny in $10 million

pCi/L - picocuries per liter (a measure of radiation)

MCL - Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

[1] - Action level
[2] - Based on running yearly average in the distribution system
[3] - USEPA level of concern for beta particles